MEASURING INFORMAL EMPLOYMENT IN MEXICO

By Rodrigo Negrete[1]

1. Informal sector: the starting point

Two Latin American countries, Mexico and Peru, made trial efforts in the mid-1980's to gauge directly through survey data the size of the informal sector not involved in criminal activities (that is, traffic of people, drugs, arms). Since an official definition of the informal sector was reached in 1993, these estimates were not made with the guidance of a consolidated conceptual framework.

The Fifteenth International Conference of Labour Statisticians (ICLS)[2] provides a conceptual framework for measuring the informal sector that takes into account the enterprise-based approach of the System of National Accounts. According to this framework, the informal sector is roughly equal to the concept of unincorporated enterprises of the household sector that is activities lacking a full set of accounts as well as an economic and legal status different from the person or persons leading them. Lack of registration and small scale are thus indicators of a set of activities which have not become an entity on its own. These enterprises are unable to develop contracts, a shared strategy for risk or to separate an individual's assets from those belonging to the enterprise. After the 1993 ICLS the next step was to review its implementation by statistical offices worldwide.

In 1996 the United Nations Statistical Commission set in motion the cities group initiative to address some strategic statistical topics among them the informal sector and informal employment. In May 1997 the Expert Group on the Informal Sector, the so-called Delhi Group, held its first session. This meeting distinguished the difference between the ICLS I993 definition and the definition of the *"unorganized sector of the economy"* in use in some South Asian countries. The discussion in further meetings highlighted the fact that the concept of unincorporated enterprises in the household sector was not an adequate criteria for identifying the informal sector. The Third Delhi Group Meeting recommended that criteria such as lack of registration and small scale ought not to be seen as contingent to the definition but central to it. Since national definitions of the informal sector cannot be fully harmonized, the meeting also recommended that data should be disseminated for the subset of the informal sector which can be defined uniformally. .

As a member of the Delhi Group, Mexico adopted these resolutions. Data are now available on informal sector employment, paid domestic work and subsistence agriculture from year 2000 to today on a quarterly basis in absolute figures and as a share of total employment. These data are disseminated together with other information provided by the Mexican Labor Force Survey (ENOE by its Spanish acronym) and incorporated in the statistical office (INEGI) press release[3]. Data are

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[2] See ILO Fifteenth International Conference of Labour Statisticians, Report III, January 1993.

[3] Press releases on employment as well other relevant economic data are available in INEGI's "Calendario de Difusión": http://www.inegi.gob.mx/est/contenidos/espanol/rutinas/ept.asp?t=cale00&c=415&s=inegi

statistically representative of the entire nation (urban and rural areas) as well as for each of Mexico's 32 states. Between 1999 and 2002 the statistical office estimated the household sector and specifically the informal sector contribution to GDP by means of a satellite account. The relevant data were collected from specialized surveys implemented as a second stage of the labor force survey. These micro- businesses surveys are known by the Spanish acronym ENAMIN. The design and weighting factors of these surveys have been redesigned[4].

With the last data release (second quarter 2008) 12 million (27 per cent) of the total employment of almost 44 million persons are engaged either as employers, employees, own account workers or contributing family members in the informal sector. The informal sector is defined as unincorporated household enterprises which lack registration with tax authorities.

Informal sector employment rate
seasonally adjusted

### Second quarter 2000 - Second quarter 2008
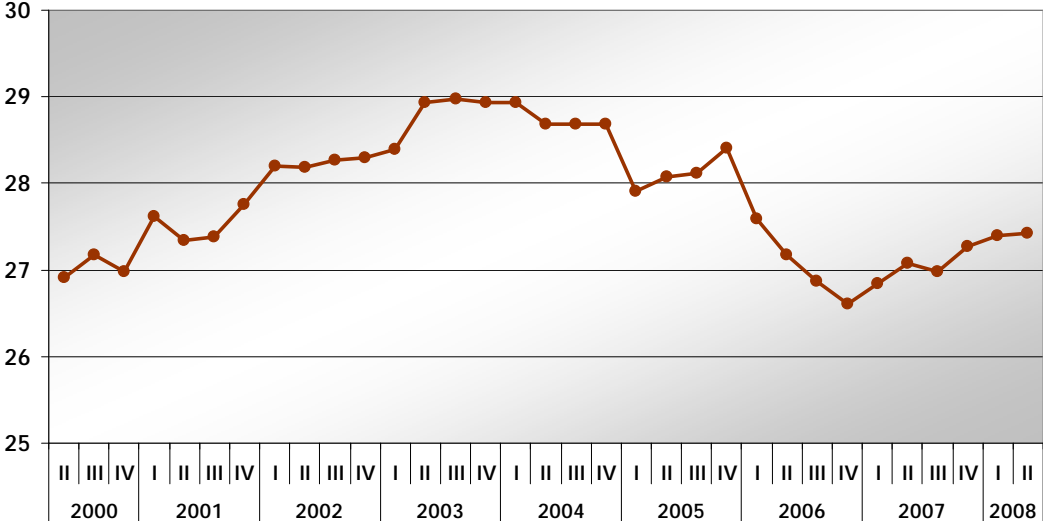
Source: INEGI, Encuesta Nacional de Ocupación y Empleo (ENOE)

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[4] A new edition of ENAMIN (Encuesta Nacional de Micronegocios) was recently designed and is in the field stage of data recollection from October 2008 to January 2009. Weighting factors of previous editions are under revision.

Variations in informal sector employment rate (ISER)
vs. variations in GDP[1]

First quarter 2003 - Second quarter 2008
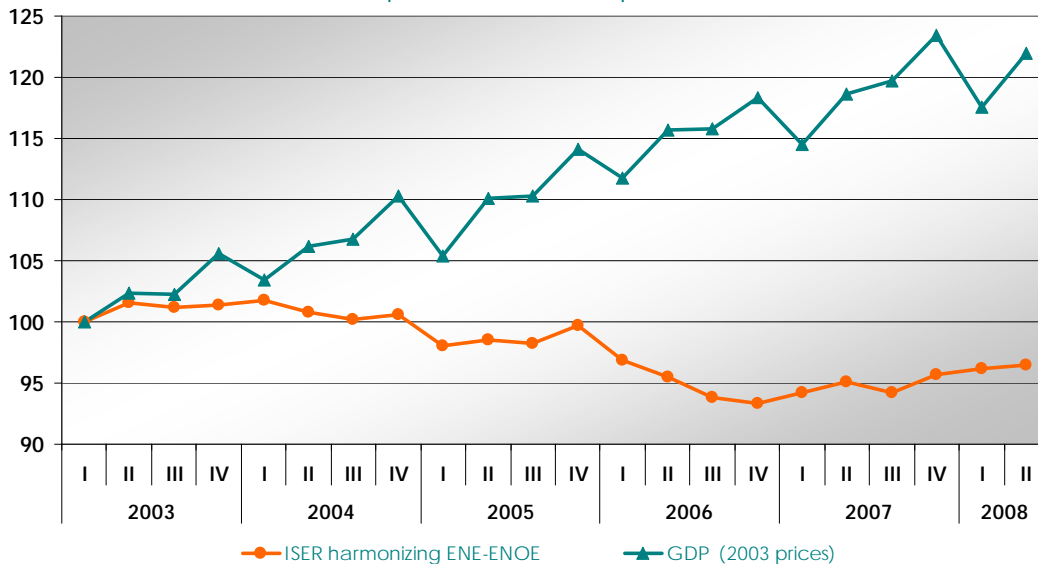
ISER harmonizing ENE-ENOE   GDP (2003 prices)

Source: INEGI, Sistema de Cuentas Nacionales de México; Encuesta Nacional de Ocupación y Empleo.
[1] *First quarter 2003 = 100*

To this figure paid domestic workers adds about 1.8 million and subsistence agriculture another 1.4 so the household sector as a whole contributes 15.2 million or more than one-third of Mexico's total employment.

2. Beyond the Informal Sector and the SNA Household Sector

A major concern of the Delhi Group was the fact that the informal sector concept did not cover modes of non-standard employment in formal economic units in which labour regulations are not applied, not enforced or not complied with for any other reason nor does it even cover all employment in the household sector. The new concept of informalization of labor relationships or informal employment extends informality beyond the traditional parts of the economy to new forms and manifestations.

Statistical offices need to provide data to detect to what extent the adoption of a market economy by the transition economies or globalization itself in the rest of the world pushes formal economic units to minimize their obligations to workers. It is important to identify that portion of employment relating specifically to employees whose condition is disguised as service suppliers rather than workers and those workers whose labor relationship is not recognized by their employer in questions in enterprise/establishment surveys.

During the fifth meeting of the Delhi Group (New Delhi, September 2001)[5] this issue was addressed by the ILO representative and an initiative was launched to incorporate a labor perspective in the

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[5] Central Statistical Organisation/India, Report of the Fifth Meeting, New Delhi, 19-21 September 2001

concept of informal employment in a complementary way to the institutional or enterprise perspective. The Seventeenth ICLS (November 2003)[6] included within the concept of informal employment those workers who are in no position to invoke a legal framework in their favor. The criteria to determine this was left open and the indicators of this fragile condition may vary depending on national legislation on minimum labor guarantees to determine if an employee is protected..
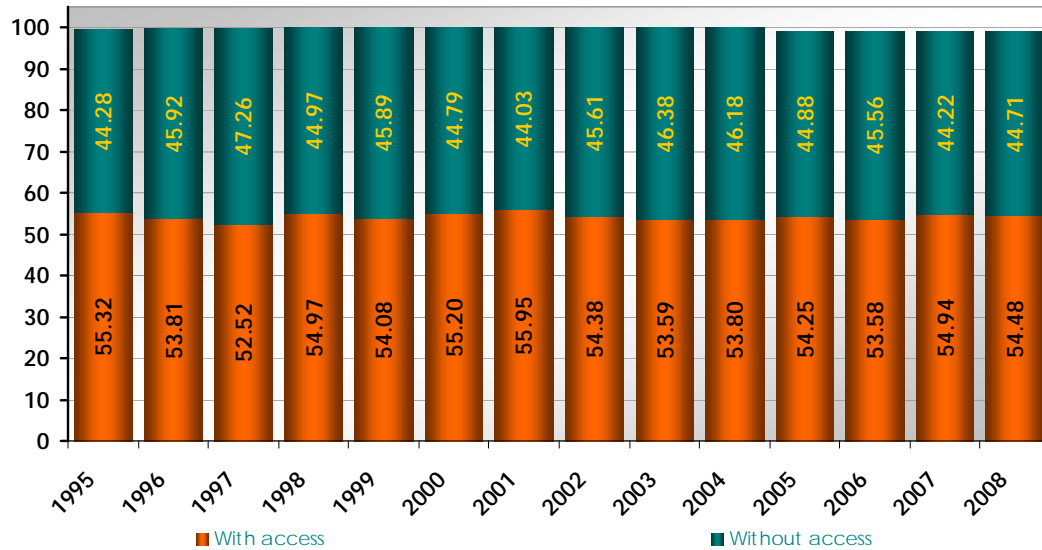
In the case of Mexico, data from the ENOE are released not only on the informal sector but also on the labor conditions of employees related to identifying informal employment: data on workers whose jobs do not bring access to health care services, workers whose jobs do not include labor compensations besides paid wages as well workers lacking a written contract are all available on a quarterly basis. Of these three types of information perhaps the most significant is a job which does not bring the individual access to health care services. Health care insurance is considered the most basic protection an employee may have. Conceptually lacking a written contract would be of equal relevance; however considering that ENOE is a classic LFS heavily dependent on indirect respondents, it seems that a larger proportion of casual respondents in a household may not be aware of that specific fact; by contrast, she/he knows which institution provides medical insurance to the family.

ENOE shows that of a total employment of 44 million (second quarter 2008), 28.7 million are paid employees. Of these about 12.9 million have jobs which do not provide health care services: 3.8 are working for informal sector economic units and another 1.8 are paid domestic workers. The net addition to the number so far identified as in the household (traditional) domain is 7.3 million [12.9 – (3.8 + 1.8)].

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[6] ILO: Seventeenth International Conference of Labour Statisticians, Report of the Conference, Geneva, 24November-3 December, 2003

Paid employees: shares of access to health care services[1]

1995 - 2008, Second quarters

Year	Without access	With access
1995	44.28	55.32
1996	45.92	53.81
1997	47.26	52.52
1998	44.97	54.97
1999	45.89	54.08
2000	44.79	55.20
2001	44.03	55.95
2002	45.61	54.38
2003	46.38	53.59
2004	46.18	53.80
2005	44.88	54.25
2006	45.56	53.58
2007	44.22	54.94
2008	44.71	54.48

■ With access   ■ Without access

Source: INEGI, Sistema de Cuentas Nacionales de México; Encuesta Nacional de Ocupación y Empleo.
[1] *Figures do not add up 100% due partial non response*

Changes in the proportion of paid employees who are covered by health services seem to point to a slight increase in the last thirteen years in those not protected. However partial non-response has been increasing during the last few years and the effect these cases would have on the rate is not known considering that a partial non-response is not necessarily evenly distributed between those having insurance and those who do not.

Informal employment in Mexico also includes the contributing family members (unpaid family workers) working not only in activities within the household but also in formal economic units, especially   market-oriented farms as well as in small economic units that while registered and thus formal are not organized as an enterprise and rely to some extent on this kind of labor input. There are 1.1 million workers in this category engaged in the informal sector plus 0.7 million linked to subsistence agriculture. There are another million that even though they are not employed by private companies (entities owned by shareholders) are working for economic units that are registered and thus formal.

3. The source and data availability:

Data on employment linked to the informal sector, subsistence agriculture as well as paid domestic workers on the one hand and access to health care services, compensation or written contracts for paid employees on the other are available on a quarterly basis in *"indicadores estratégicos" (strategic indicators)* of the *Encuesta Nacional de Ocupación y Empleo* (ENOE).

ENOE is the official Labor Force Survey, based on a probabilistic sample with a scope of 120,000 dwellings per quarter yielding data representative of the following domains:

➢ National and disaggregated for three types of urban areas and rural ones

➢ State (32)

➢ 32 Cities (each state's larger city).

Collective dwellings such as jails or asylums are not selected for the sample nor are the military force insofar as they are concentrated in barracks. Conscripts are not considered part of the labor force.

The classification system adopted for industry is NAICS, the equivalent currently in use by Canada and the United States. The occupational classification system is a Mexican adaptation of ISCO called CMO.

Working age is considered 14 years and older. The conceptual frame to define the economically active population (labor force) as well as the not economically active population is provided by ILO's purple book. The dwelling sample is organized in five panels. Each dwelling has a cycle of five visits (one per quarter) before leaving the sample and being replaced by another set that starts a new cycle. Each panel is organized so that in each quarter four-fifths of the sample were visited last quarter (one-fifth is in its second visit, another fifth in its third, etc.) and the remaining fifth is a new panel.

Internet availability of Mexico's labour force survey (ENOE)

http://www.inegi.gob.mx/inegi/default.aspx

▶ Información estadística > Fuente / Proyecto > Encuestas en hogares > Encuesta nacional de ocupación y empleo >

Productos

(Encuesta nacional de ocupación y empleo)

Productos encontrados (Total 10)

[Página **1** de **1**]

No.	Título	Edición	Ver ficha	Formato de presentación	Ir a
1	Encuesta Nacional de Ocupación y Empleo. Consulta interactiva de datos	2008		Internet	
2	Encuesta Nacional de Ocupación y Empleo. ENOE. Indicadores estratégicos. Trimestral	2008		Internet	
3	Encuesta Nacional de Ocupación y Empleo. ENOE. Ordenamiento de las entidades federativas según la problemática de la ocupación y el acceso al empleo	2008		Internet	
4	Encuesta Nacional de Ocupación y Empleo. ENOE. Pruebas de significancia estadística	2008		Internet	
5	Encuesta Nacional de Ocupación y Empleo. ENOE. Series unificadas con criterios de la ENOE. Nacional, entidad federativa y urbana	2008		Internet	
6	Encuesta Nacional de Ocupación y Empleo. ENOE. Tabulados básicos. Trimestral	2008		Internet	
7	Encuesta Nacional de Ocupación y Empleo. InfoLaboral. Sistema para la consulta de indicadores estratégicos	2008		Internet	
8	Encuesta Nacional de Ocupación y Empleo. ENOE, 2007 *Productos relacionados*	2007		Impresa e Internet	

9	Encuesta Nacional de Ocupación y Empleo, 2005 y 2006. ENOE	2006		Disco compacto	
10	Encuesta Nacional de Ocupación y Empleo 2005. Una nueva encuesta para México. ENOE Metodología ***Productos relacionados***	2005		Internet	

From the above list Item 2 corresponds to the already mentioned *"Indicadores Estratégicos"* (IE). IE is a template organized in segments. In order to locate concepts mentioned so far the following guide facilitates a quick search:

Location of data on nonstandard employment within ENOE's 'indicadores estrategicos"

Concept/Variable	Segment
Employment in the Informal Sector	3.7 (tipo de unidad económica); row 90
% of total employment	10 (tasas); row 265
Paid domestic workers	3.7 (tipo de unidad económica); row 90
Employment in subsistence agriculture	3.7 (tipo de unidad económica); row 91
Paid employees whose job do not provide them health care services	4.4 (condición de acceso a las instituciones de salud); row 132
Paid employees without compensations	4.5 (prestaciones laborales); row 137
Paid employees without written contract	4.6 (disponibilidad de contrato escrito); row 145
Unpaid employees (contributing family members)	3.1 (posición en la ocupación); row 24

Item 5 (*series unificadas con criterios de la ENOE*) shows long series seasonally adjusted by means of X-12 ARIMA. Of all categories so far mentioned only this series is available for the rate of employment in the informal sector.

Item 6 (*pruebas de significancia estadística*) contains the IE's indicators of data evaluation (standard errors, variation coefficients, confidence intervals) as well as the results of significance testing for the same quarter of the previous year.

Item 7 (*InfoLaboral)* links IE's predecessor, a LFS called ENE. It is important to point out that ENOE LFS model replaced the ENE in January 2005. This harmonized series applies the same ENOE's criteria and procedures to produced by ENOE with information generated by its construct variables in the ENE. 90 per cent of the 219 variables contained in the IE's were thus linked.

Micro data are also available on request.

4. Integration of the informal employment in one single snapshot

As described above, data on unprotected paid employees (either without access to health care services, without compensations or contracts) cannot be added directly to the total number of persons employed in the informal sector or any other category within the household domain because there are some overlaps. To understand this it is important to see the framework for informal employment both inside and outside the informal sector in what we call the *"Hussmanns' Matrix."* This matrix unifies both the perspective of the economic unit and that of employment .or labor conditions.

Informal employment (Hussmanns' Matrix)

	Type of Economic Unit	Labor guarantee's perspective			
		Category (status) in employment			
		Employers	Own account workers	Employees	
				Informal	Formal
Economic	**Non-profit institutions, enterprises, formal familiar/personal businesses**			$6^{3/}$	
Unit	**Informal sector**$^{1/}$	1	2	3	
Perspective	**Subsistence agriculture**		4	$5^{2/}$	
	Households hiring paid domestic workers			$7^{3/}$	

$^{1/}$ *As defined by the fifteenth ILO-ICLS (1993): it excludes agriculture activities.*

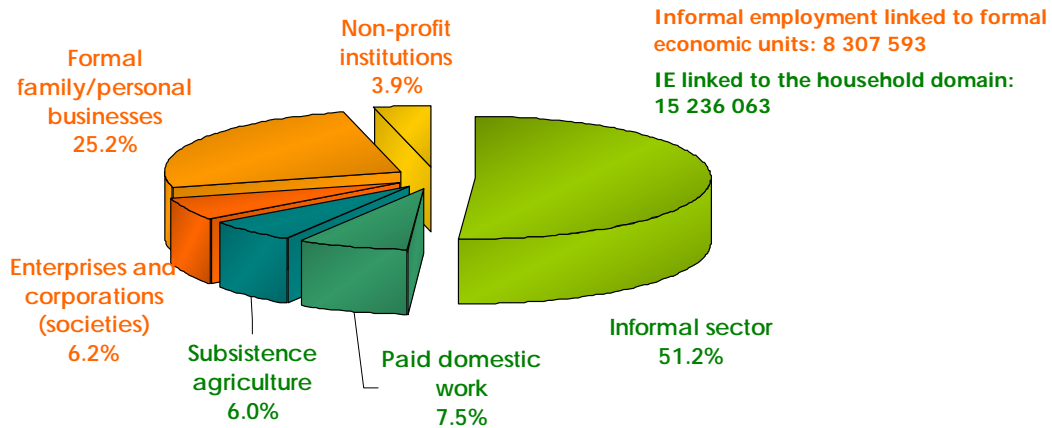$^{2/}$ *Subsistence agriculture often engages contributing family members.*

$^{3/}$ *Encompassing paid domestic workers unable to make effective their labor rights.*

Cells 3, 5 and 7 show an intersection of both criteria; cell 6 corresponds to the emergent part of informal employment. --that is not explained by the household sector.

According to this scheme, for the second quarter of 2008, 23.5 million persons or about 54 per cent of total employment are considered to be in informal employment. The formal sector (cell 6 in the Hussmanns' Matrix) contributes about 8.3 million of this number with 25 per cent of informality coming from registered economic units not operating as a private company or corporation 6 per cent from corporations –including multinationals- and 4 per cent working for nonprofit institutions.

Informal employment by economic domain
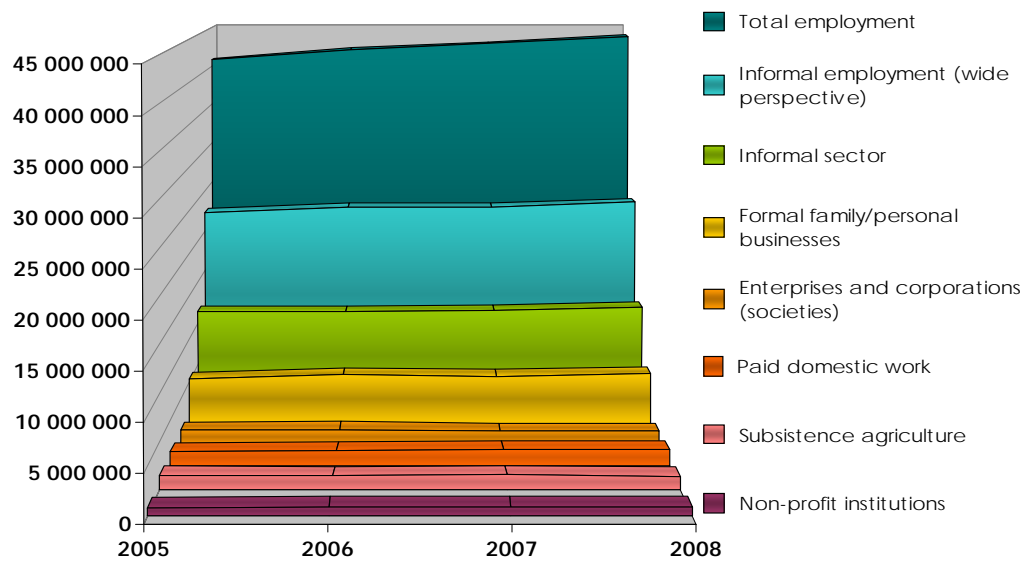### Second quarter 2008

Formal family/personal businesses
25.2%

Non-profit institutions
3.9%

Informal employment linked to formal economic units: 8 307 593

IE linked to the household domain: 15 236 063

Enterprises and corporations (societies)
6.2%

Subsistence agriculture
6.0%

Paid domestic work
7.5%

Informal sector
51.2%

Total informal employment (wide perspective)	23 543 656
Total employment	43 866 696
Share	53.67

Source: INEGI, Encuesta Nacional de Ocupación y Empleo (ENOE)

During the period 2005-2008 there is some evidence of growth in absolute numbers of persons in informal employment; however it did so at a slower pace than the increase of total employment (not only paid employees but also own account workers, employers and contributing family members).

Informal employment by economic domain
2005 - 2008 (Second quarters)

- Total employment
- Informal employment (wide perspective)
- Informal sector
- Formal family/personal businesses
- Enterprises and corporations (societies)
- Paid domestic work
- Subsistence agriculture
- Non-profit institutions

5. Problematic types of nonstandard employment

While the matrix provides an important conceptual framework, there remain problematic categories. One concerns employers and own account workers in registered micro-businesses which do not have a complete set of accounts. Employees (either paid or unpaid) of such units are considered informal if their jobs are not protected. The problem is the owner or person who leads the activity. The framework considers them formal because the economic unit is registered. Since employers and own account workers do not have a labor relationship from which a guarantee is either obtained or denied, their condition can be established only through the nature of the activity they lead. If the economic unit is formal, they would also be classified as formal. However the occurrence of a contingency such as an accident while working or a health care problem leaves them in a situation which is perhaps not different from those in the informal sector. The risk of not having an institutional response for individuals facing either economic or personal contingencies in their work seems to be a common denominator in the *Hussmanns' Matrix.* Once this perspective is adopted, it is not easy to determine where it stops. It is important also to take into account that income collected by small entrepreneurs is branded *"mixed-income"* under SNA terminology meaning that to the extent that they work in their business --and not only exert proprietary rights-- income is part labor remuneration part property rent, whereas the mixed tag suggests there is something of a worker in them.

Other problem cases are certain occupational groups such as those selling cosmetics, or any well-known brand item for daily use at home where a particular vendor is the exclusive channel of distribution. In these cases individuals are not considered to be employees of the firm but people *"proud of their independency."* By mean of acquaintances they build up a net of sellers and buyers. The person at the top of a pyramid thus constructed may be independent in terms of status in employment; however it is not clear what status or category applies to those under her leadership. If they are deemed as dependent workers (some kind of employees) lacking any labor protection or guarantee, they clearly fit in the matrix but in case they do not consider themselves as employees, classification will depend on whether their economic activity is registered, thus they might be a particular case of the situation outlined above.

Even though these respondents consider themselves as employees, it remains problematic to consider from whom they are dependent workers: the person at the top of the pyramid or the firm as such. That is the very point of the firm's strategy.

It is a challenge for any LFS worldwide that the status in employment classification cannot be decisive for certain occupational categories. It is also important to point out that the income modality by itself cannot be determinant in this regard. The fact that a person does not receive a salary but a sales commission might not be sufficient or categorical in determining whether there is dependent or independent condition. In fact, ENOE recognized a paid employee subgroup called *"paid employees with no salary perceptions"* (IE, row 21); all cases fulfilling three conditions are placed in the sub-group:1) the individual is accountable to a superior in their working process 2) their contribution barely goes beyond their own working force and 3) a fixed payment such as a salary does not form part of their income. This category amounts to 2.1 million cases, most of whom lack health care access by means of their labor condition and therefore are considered as informal employment under the Hussmanns' Matrix frame.

6. Pending statistical research

One puzzle that strikes analysts of Mexican data with regard to employment data are the differences so far shown by data provided by the national institute of social security services for those working in the private sector (known by its acronym IMSS: *Instituto Mexicano del Seguro Social*) and those yielded by ENE (1995-2004) first and then ENOE (2005-). For example, in August 2008, IMSS reported 14.4 million paid employees in their administrative registers meanwhile ENOE identified 13.1 million so either IMSS overestimated the number of paid employees with a protected job or ENOE underestimated the extent of social security protection (thus overestimating the informal employment using the Hussmanns Matrix-Delhi Group frame) .

Data on paid employees; contrasting data from administrative registers of social security with those coming from Mexican Labor Force Survey (ENOE)

First quarter 2005 - Second quarter 2008
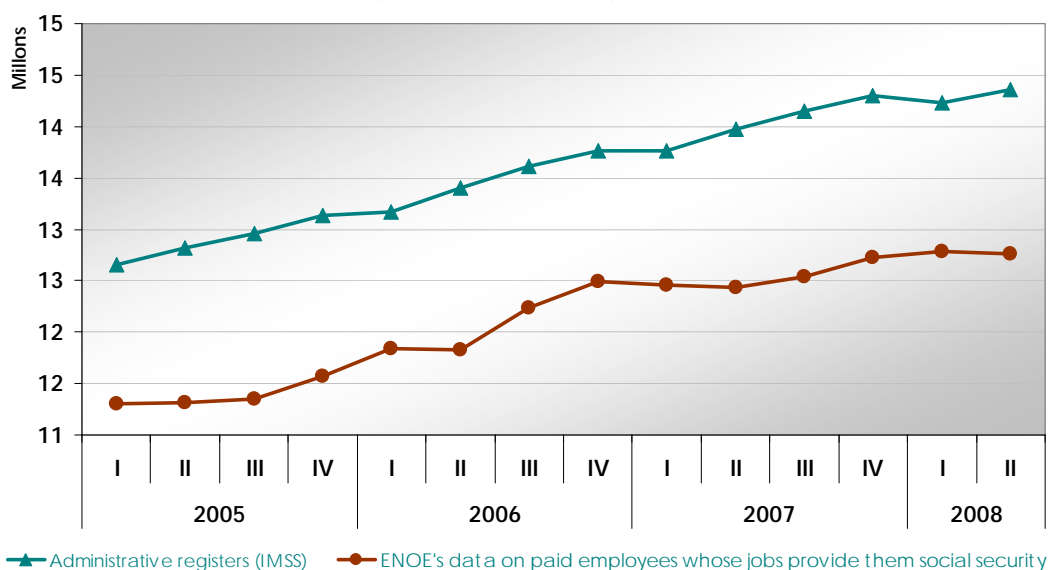
Source: INEGI, Encuesta Nacional de Ocupación y Empleo (ENOE); Instituto Mexicano del Seguro Social (IMSS).

The cause of these systematic differences is not clear. One explanation points out that some entrepreneurs register family members in IMSS as if they were part of their enterprise's payroll whereas a LFS classifies them as not engaged in an economic activity. Another explanation concerns a possible asymmetry between the efficiency of registering an "in" versus registering an "out" in IMSS records. More sophisticated hypotheses go further, pointing out the difference in the nature of statistics that ought to be understood as a flux (IMSS) contrasting with those in terms of stocks (ENOE).

Some benchmarking has been intended ignoring levels and focusing on trends. For instance regression with GDP series seems to yield slightly better results for IMSS data than regressions obtained with ENOE. However – and beyond any assumption of accuracy or completeness in GDP

estimations - it cannot be ignored that series based on statistical records do not have a random component while those coming from a probabilistic sample necessarily do. Therefore a LFS series - to the extent that there is white noise embedded in it - always has some disadvantage if comparisons of this kind are going to be made.

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